

Name: _____

Teacher: _____

Algebra Pd: _____

HW 3.10: Exponential Growth and Decay

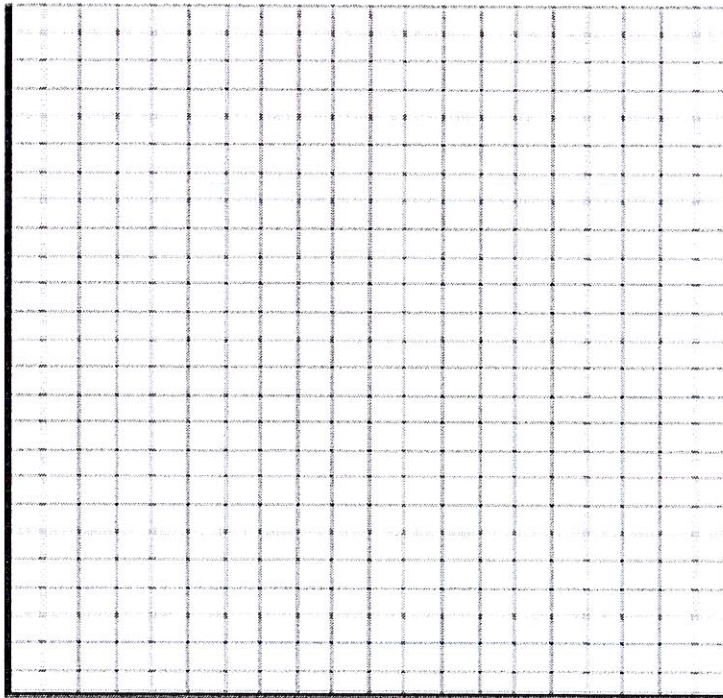
Day Month Year

1. You currently have five followers on Twitter, but the number of your followers is growing by a factor of three weekly due to your hilarious tweets.

a) Write the equation for this situation.

b) How many followers will you have in 0 weeks? 1 week? 2 weeks? 3 weeks?

c) Graph this situation.



2. Gorizium-231 has a half-life of seventeen days. You begin observing a 60 gram sample.

a) Write the equation for this situation.

b) How many grams of Gorizium-231 will be present after 136 days?

3. You purchase a car for \$35,210 in 2014. The value of the car depreciates 11.6% annually. What will the value of the car be in 2023? Use the exponential decay formula and round to the nearest cent.